

**Humboldt-Toiyabe National Forest, Ely Ranger District
&
Bureau of Land Management, Ely District
Environmental Assessment**



U.S. Department of the Interior
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Ely District Office

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Humboldt-Toiyabe National Forest
Ely Ranger District

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Environmental Assessment

Chapter 1 Background

Introduction

In 1989, the Nevada Wilderness Protection Act designated 14 wilderness areas across the state of Nevada, four of which are on the Ely Ranger District. The Humboldt National Forest Land and Resource Management Plan of 1986 was amended in 1990 to provide direction for the management of those four wilderness areas. In 2006, under the White Pine County Conservation, Recreation and Development Act of 2006 (WPCCRDA) passed as part of the Tax Relief and Health Care Act of 2006, five more wilderness areas were designated bringing the total number of wilderness areas on the Ely Ranger District to nine. There is currently no management direction for the five newly designated wilderness areas.

One of the wilderness areas designated in 1989, Mt. Moriah Wilderness, is co-managed by both the U.S. Forest Service (USFS) and the Bureau of Land Management (BLM). The BLM developed the Final Wilderness Management Plan for Mt. Moriah Wilderness in 1995. The BLM portion of the wilderness was further expanded under the WPCCRDA of 2006. The USFS and BLM signed a Memorandum of Understanding (MOU, 2012) between that allows for the USFS to assume the lead on the development of a wilderness management plan (WMP) for the entire Mt. Moriah Wilderness.

The United States Forest Service (USFS) Humboldt-Toiyabe National Forest, Ely Ranger District and the BLM Ely District Office propose to approve a WMP that establishes standards and guidelines that focus on preserving the wilderness character for the co-managed Mt. Moriah Wilderness and the eight other wilderness areas managed by the USFS Ely Ranger District: High Schells, Shellback, White Pine Range, Bald Mountain, Currant Mountain, Red Mountain, Quinn Canyon and Grant Range. Approximately half of the Ely Ranger District is designated wilderness (455,000 acres). These areas are located in White Pine County and Nye County, Nevada.

The United States Congress established the National Wilderness Preservation System to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States. Wilderness designation is intended to preserve and protect certain lands in their natural state. Only Congress, with Presidential approval, may designate public lands as Wilderness. The Wilderness Act of 1964 identifies wilderness uses and prohibited activities. Although wilderness character is a complex idea and is not explicitly defined in the Wilderness Act, it is commonly described as:

- **Untrammeled** – the wilderness is unhindered and free from modern human control or manipulation.
- **Natural** – the wilderness appears to have been primarily affected by the forces of nature.
- **Undeveloped** – the wilderness is essentially without permanent improvements or human occupation and retains its primeval character.
- **Outstanding opportunities for solitude or a primitive and unconfined type of recreation**– the wilderness provides outstanding opportunities for people to experience solitude or primeval and unrestricted recreation, including the values associated with physical and mental inspiration and challenge.

Additionally, wilderness areas may contain ecological, geological, or other features of scientific, educational, scenic, or historical value. These supplemental features or values are complimentary to the overall wilderness character and need not be present for an area to meet the definition of wilderness.

Managing Wilderness is guided by five objectives as described in USFS Manual Policy 2300 subsection 2320.2 (FSM 2320.2) and four primary goals defined in Appendix 1 of the BLM wilderness management planning manual (BLM Manual 8561). See “Wilderness Management Goals and Objectives section beginning on page 9 of the Wilderness Management Plan.

Purpose and Need

The purpose of this project is to establish supplemental, meaningful management direction that focuses on preserving wilderness character for all nine wilderness areas on the Ely Ranger District, including the BLM portion of Mt. Moriah, under a policy of non-degradation. There currently is no management direction for the five USFS wilderness areas that were designated in 2006 (WPCCRD), and the existing management direction found in the Humboldt National Forest Land & Resource Management Plan (1986) for the four wilderness areas designated in 1989 is not adequate or specific enough to ensure the USFS is meeting the mandate of preserving wilderness character intended in the 1964 Wilderness Act. The BLM’s Mt. Moriah Wilderness Management Plan was scheduled for revision in 2005.

Proposed Action

The proposed action is to amend the wilderness management sections of the Forest Plan for the Humboldt National Forest, specific to the Ely Ranger District. The primary changes would be to the Standards and Guidelines for wilderness management found on pages IV-71 and IV-72 in the Forest Plan, as well as, subsequent sections (IV-137 through IV-195) pertaining to the management areas found within the Ely Ranger District, as well as, the Forest Plan Amendments 1 and 7 relating to the designation of the four Wilderness areas in 1989 and two Research Natural Area’s in 1998. This alternative would also establish standards and guidelines for the five wilderness areas designated in 2006.

Standards related to visitor use and physical conditions will be adopted, and indicators for conducting Wilderness Character Monitoring will also be selected. The BLM initiated Wilderness Character Monitoring in 2011 and the two agencies will coordinate to establish consistent indicators and measures for the Mt. Moriah Wilderness.

Wilderness character baseline data collection and monitoring on the Ely Ranger District will begin upon adoption of this plan and would be based on new standards and guidelines, as well as, any protocols and standards adopted nationally in the future. In areas where conditions do not meet standards, administrative actions could be taken to move conditions toward meeting standards. Any ground disturbing actions taken would be subject to further site-specific NEPA analysis under separate documentation.

Decision to Be Made

This document will affect management guidance for both the BLM and USFS, therefore, two Records of Decision and one Finding of No Significant Impact will be signed by both authorized officers. This

document will provide the Forest Supervisor of the Humboldt-Toiyabe National Forest and the BLM District Manager with a basis on which to make an informed decision. Following review of this document, the USFS Forest Supervisor and BLM District Manager, as appropriate, will decide to do one or more of the following:

1. Approve an amendment to the Humboldt National Forest Land and Resource Management Plan as proposed in this document. This would include adjustments to the Wilderness standards and guidelines and the establishment of Wilderness Recreation Opportunity Spectrum (WROS) management zone classifications as a means of monitoring wilderness character indicators.
2. Approve management proposals as presented in one of the alternatives or a combination of alternatives analyzed in this document.
3. Defer some or all of the specific management proposals for implementation at a later date.
4. Determine that the proposed actions or certain proposed actions in this document may cause significant impacts (as defined in 40 CFR 1508.27) that will require development and approval of an environmental impact statement (EIS) prior to implementation.
5. Choose to select the No Action Alternative.

This decision will result in a non-significant Forest Plan Amendment.

Management Direction

Direction for wilderness management planning is provided in FS Manual 2300 Chapter 2320 –Wilderness Management, which states, “Wilderness management direction is prepared as a part of the forest planning process”, and BLM Manual 6340 - Management of Designated Wilderness Areas, which states in Section 1.6 D.5, “Wilderness management plans, which are implementation level plans that tier to allocation decisions in resource management plans, will be written as soon as practicable after designation.” The proposed action would provide clear, concise management direction for the four wilderness areas designated in 1989, specifically Mt. Moriah, as well as, amend the Humboldt National Forest LRMP to adequately address the five wilderness areas designated in 2006.

This EA is in conformance with the goals, objectives, and decisions analyzed within the scope of the BLM Ely District Approved Resource Management Plan (RMP, 2008) and the Land and Resource Management Plan, Humboldt National Forest (1986).

BLM (43 Code of Federal Regulations (CFR) 1610.3.2[a]) and FS (36 CFR Part 219) planning regulations require that BLM and FS resource management plans be consistent with officially approved plans of other federal, state, local, and tribal governments to the extent those plans are consistent with federal laws and regulations applicable to public lands. Although this regulation does not apply to other official plans created after the land use plan is implemented, the BLM and FS strive for management decisions to be consistent with other official plans.

Compliance with Executive Orders, Laws, Regulations, and State Statutes

The proposed action and alternatives are in compliance with the following:

- The Wilderness Act of 1964 (16 U.S.C. §§ 1131-1136, September 3, 1964, as amended 1978).

- The Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1782, October 21, 1976, as amended 1978, 1984, 1986, 1988, 1990-1992, 1994 and 1996).
- National Forest Management Act of 1976 (16 U.S.C. §§ 1600-1614, August 17, 1974, as amended 1976, 1978, 1980, 1981, 1983, 1985, 1988, and 1990).
- Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. §§ 528-531, June 12, 1960, as amended 1996)
- The National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347, January 1, 1970, as amended 1975 and 1994).
- Clean Air Act (42 U.S.C. §§ 7401-7602, December 31, 1970, as amended 1977, 1990, 2004).
- The Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544, December 28, 1973, as amended 1976-1982, 1984, and 1988).
- Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d, June 8, 1940, as amended 1959, 1962, 1972, and 1978).
- Migratory Bird Treaty Act (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989).
- Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds (2001).
- Management of Designated Wilderness Areas (43 CFR Part 6300).
- Recreation Management Restrictions: Occupancy Stay Limitation (43 CFR 8365.1-2(a) and Federal Register Notice NV-930-4333-02).
- Unlawful Manner of Camping Near Water Hole (Nevada Revised Statute 503.660).
- Executive Order 13112: Invasive Species (1999).
- Executive Order 13443: Facilitation of Hunting Heritage and Wildlife Conservation (2007).
- National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470 as amended through 2000).
- Federal Cave Resources Protection Act of 1988.
- Federal Property and Administrative Services Act of 1949 (40 U.S.C. as amended through P.L. 106–580, Dec. 29, 2000).
- Archaeological Resources Protection Act of 1979, as amended (Public Law 96-95; 16 U.S.C. 470aa-mm).
- Native American Graves Protection and Repatriation Act (Public Law 101-601, 25 USC 3001 et seq., 104 Stat. 3048)
- Executive Order No. 13007: Indian Sacred Sites. May 24, 1996.
- Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195).
- Nevada Wilderness Protection Act of 1989 (Public Law 101-195).
- White Pine County Conservation, Recreation and Development Act of 2006 (Public Law 109-432).

Relationship to Policies and Guidelines

The proposed action and any alternatives to the proposed action are in conformance with the following guidelines, manuals, and handbooks:

- Wilderness Management (FS Manual 2300, Chapter 2320).
- Humboldt-Toiyabe Heritage Resource Guidelines (1995).
- Humboldt-Toiyabe Fire Management Plan (2012).
- Central Zone Vegetation Management Programmatic Agreement (2010).
- Humboldt-Toiyabe National Forest Programmatic Agreement (Draft).
- Management of Designated Wilderness Areas (BLM Manual 6340).

- Wilderness Management Plans (BLM Manual 8561).
- Wildlife Management Guidelines (House Report No. 101-405, Appendix B).
- BLM Emergency Stabilization and Rehabilitation Handbook (1742-1).

Public Involvement

External requests for comments were submitted in May of 2008 and again in March of 2012 to interested individuals identified through the Ely Ranger District comprehensive mailing list and BLM wilderness mailing list, as well as, to other interested agency partners. Outfitter/guide meetings were held March 22, 2011 and March 15, 2012 in order to provide opportunities for those interested parties to ask questions and be provided information. No other public meetings were held. Request for comments were published in the Ely Times in May of 2008 and in March of 2012.

The Ely District Ranger has met quarterly with the Ely Shoshone and Duckwater Tribal councils in order to update the Tribes on programs and projects including this one.

The White Pine County Public Land Use Advisory Committee and County Commissioners have been briefed by the Ely District Ranger and Natural Resource Manager throughout the development of this project.

A total of seven comments were received in the 2008 scoping period. During the 2012 scoping period three written comments and three electronic comments were received. Copies of the letters and comments received and the complete mailing list are in the Analysis File for this project.

Issues

Issues associated with the proposed actions in the planning area were identified through the scoping process by an Interdisciplinary Team, written feedback received from individuals and groups, from contact with interested parties and groups. Internal scoping was done via meetings and written communications with BLM and FS resource specialists. Public scoping was conducted in the form of public workshops, meetings with outfitter and guides, written letters, email, and by BLM and FS staff. Multiple scoping efforts were conducted beginning on May 9th, 2008 and March 8th, 2012.

All issues and concerns received through internal and external scoping that relate to wilderness resource conditions were considered during the development of the reasonable range of alternatives. Certain issues and concerns were judged to be out of the scope of this analysis.

The issues identified in this process fall into two categories:

1. **Key issues.** Key issues are used to develop and analyze the alternatives. They involve potential effects to resources that might not be addressed by existing laws, standards and guidelines, policies, or mitigation measures.
2. **Issues Not Given Detailed Analysis.** These issues are not given detailed analysis because they are outside the scope of this project, are already decided by law, regulation, policy, Forest Plan or other higher level decision, are irrelevant to the decision to be made or are conjectural and not supported by factual evidence or scientific evidence.

The following section describes the issues and related or affected resources. More detailed information concerning the effects to resources can also be found in Chapter 3.

Key Issues

Based on comments received, the Forest Service separated the issues into two groups: key issues and issues not given detailed analysis. Key issues were defined as those directly or indirectly caused by implementing the proposed action. The Council on Environmental Quality (CEQ) NEPA regulations require this delineation in Sec. 1501.7, "... identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3) ..."

As for key issues, the Forest Service identified two issues. These issues included:

- Permitting the use of goats as pack stock in wilderness where Desert and/or Rocky Mountain bighorn sheep populations exist can lead to disease transmission between the species and result in impacts to these sheep species.
- Recreation activities may impact the undeveloped and pristine character of wilderness.

Issues Not Given Detailed Analysis

A brief list of resource concerns that were identified and their disposition follows.

Habitat manipulation using prescribed fire.

The proposed action does not propose any habitat manipulation activities and this concern is deemed to be outside the scope of this project. Further, habitat manipulation is considered a trammeling of wilderness character. Any site-specific actions that would affect resources on the ground in wilderness will be subject to separate Minimum Requirements Analysis, as well as, NEPA analysis.

Camping within 200 feet of water sources leads to degradation of water quality and other riparian impacts.

The proposed action does not propose instituting a camping setback of 200 feet from water sources. This type of restriction impedes a visitor's access to primitive and unconfined recreation opportunities, solitude and the overall experience of a wilderness visit. However, Nevada Revised Statute 503.660 states, "It is unlawful for any person to camp within 100 yards (300') of a water hole in such a manner that wildlife or domestic stock will be denied access to such water hole."

Further, previous campsite monitoring has not shown any indication that campsites are impacting water quality. This is a potential impact and one that will be continually monitored into the future. If it is found that certain campsites within 100 yards of sole water sources (springs) or within 200 feet of water sources (streams) are having a negative impact to those water bodies, then actions may be taken to mitigate those impacts. Leave No Trace principles are always communicated to wilderness visitors by personnel when in the backcountry and as such, it is usually recommended that visitors camp at least 200 feet from trails and water sources. This isn't always possible due to the terrain in some wilderness areas, as well as, other intangibles affecting the wilderness visitor. In situations where terrain limits a visitor's options for selecting a campsite, it is recommended that the visitor use an existing site rather than creating a new one. This in turn limits further degradation of the wilderness resource.

Chapter 2 Alternatives

The Wilderness Planning Team considered alternative ways of managing wildernesses that are administered or co-administered by the Humboldt-Toiyabe National Forest Ely Ranger District and the Ely BLM District Office. This resulted in project alternatives which address the issues raised in Chapter 1 and:

1. Meet the purpose and need of the project.
2. Provide a reasonable range of actions to address the issues.
3. Meet, or include proposals for modifying, Standards and Guidelines of the Humboldt National Forest Land and Resource Management Plan (Forest Plan).

Alternative A, the no-action alternative, describes the existing situation. The action alternative, Alternative B, was designed to move the wilderness toward desired conditions based on purpose and need, objectives, and issues described in Chapter 1.

No Action Alternative

Alternative A is the no-action alternative. Under the no-action alternative, wilderness management would continue as it is currently conducted. The existing standards and guidelines in the Humboldt National Forest Land and Resource Management Plan (Forest Plan), as well as, Amendment 1 would continue to guide the management of four wilderness areas within the project area, while five other units would have no management guidance.

The portion of the Mt. Moriah Wilderness administered by the BLM would continue under its outdated management plan from 1995 and BLM would prepare a separate management plan update at a later time.

Wilderness character baseline monitoring for the USFS will go undocumented as there is no framework for conducting this monitoring work under established policy. The BLM will continue to collect data on wilderness character under the framework/guidance that is currently in place.

Alternative B: Proposed Action

This alternative would amend the wilderness management sections of the Forest Plan for the Humboldt National Forest, specific to the Ely Ranger District. The primary changes would be to the Management Direction and Standards and Guidelines for Wilderness Management found on pages IV-71 and IV-72 in the Forest Plan, as well as, subsequent sections (IV-137 through IV-195) pertaining to the management areas found within the Ely Ranger District, as well as, the Forest Plan Amendments 1 and 7 relating to the designation of the four wilderness areas in 1989 and two Research Natural Area's in 1998. Further, this amendment would address management guidance for the two other RNA's on the Ely Ranger District that were designated in 1988 and 1996 respectively. This alternative would also establish management direction and standards and guidelines for the five wilderness areas designated in 2006.

Standards for physical conditions and use capacity would be established (See Table 1 below). No changes to the Toiyabe National Forest Plan are proposed in this alternative.

The BLM's 1995 Mt. Moriah Wilderness Management Plan will be replaced with this plan. Supplemental rules regarding group size limits and weed-free feed for stock would be adopted and posted in the Federal Register.

The draft National Framework for Monitoring Wilderness Character will be adopted (See Appendix O). Indicators selected for monitoring wilderness character would include a combination of new indicators and modified indicators, all of which would be designed to be easily measurable in field situations (See Appendix L). The standards and guidelines associated with each indicator would be based on the policy of non-degradation. Wilderness character monitoring would be ongoing and would be based on the new standards and guidelines and any future direction established nationally. In areas where conditions do not meet standards, administrative actions could be taken to move conditions toward meeting standards. For the co-managed Mt. Moriah Wilderness, the BLM and USFS will identify standard indicators and measure to be applied across the wilderness.

Table 1: Comparison of Alternatives

<u>Resource</u>	<u>Existing Management Direction</u>	<u>No Action</u> Existing Forest Plan Standards and Guidelines	<u>Proposed Action</u> Management Direction, Standards and Guidelines (S= standard, G= guideline) These would be in addition to existing Forest Plan S & G's.
Wilderness management - general	<p>FSM 2320 – Wilderness Management</p> <p>Humboldt NF, LRMP 1986-</p> <p><i>"Manage for the Recreation Opportunity Spectrum (ROS) inventoried".</i></p> <p><i>"Manage wilderness at the standard service level"</i></p> <p>Ely BLM Mount Moriah Wilderness Management Plan 1995-</p> <p><i>Maintain or enhance the opportunity for solitude, the natural untrammeled appearance of landscapes, and special features within the plan area.</i></p> <p><i>Maintain or allow for natural succession to occur within the major vegetative communities, which are defined by range or woodland sites.</i></p>	<p><i>"If use keeps increasing at the present rate, a permit system or other method on controlling and distributing people may be initiated in the future to encourage camping away from lakes, outfitter camps, or other heavily used user areas."</i></p> <p><i>"Determine the current use and monitor subsequent use being made of the Wilderness to prevent over use."</i></p>	<p>Each wilderness is covered by an approved Wilderness Management Plan (WMPs)</p> <p>WMPs shall be reviewed/updated at least every 5 years</p> <p>Institute Wilderness ROS (recreation opportunity spectrum) zones in order to manage for Solitude and Opportunities for Primitive or unconfined recreation.</p> <p>(S) Wilderness Resource Advisors (READ) shall be assigned by a Line Officer or Agency Administrator, or by a determination in consultation with a Resource Advisor, that assignment is not needed on wilderness fires.</p>
Information & Education	<p>Humboldt NF, LRMP 1986-</p> <p><i>"Provide information on wilderness areas".</i></p>	<p><i>"Provide public with current information on the Wilderness Area at the District Office or Forest headquarters"</i></p> <p><i>"Encourage NO TRACE camping by written materials at trailheads and by personal contact"</i></p> <p><i>"Patrolmen will contact wilderness users to promote wilderness ethics and notify them of hazards"</i></p>	<p>Education plan(s) shall be reviewed/updated at least every 5 years by an Interdisciplinary Team.</p>

<u>Resource</u>	<u>Existing Management Direction</u>	<u>No Action</u> Existing Forest Plan Standards and Guidelines	<u>Proposed Action</u> Management Direction, Standards and Guidelines (S= standard, G= guideline) These would be in addition to existing Forest Plan S & G's.
Research (including Research Natural Areas)	Manage in accordance with FSM and FSH direction	<i>"Protect the Research Natural Area's from disturbance."</i>	<p>Follow management direction outlined in Establishment Records for each Research Natural Area.</p> <p>Manage research projects to preserve wilderness character in accordance with the Wilderness Act.</p> <p>(S) Authorized research projects shall be conducted in a manner that preserves or enhances Wilderness Character.</p> <p>(G) Utilize guidance such as what is found in Framework for Evaluation of Scientific Activities in Wilderness (RMRS GTR-234WWW.2010)</p> <p>(S) New campsite shall not be located within RNA's.</p> <p>(S) Any existing campsites within RNAs shall be removed and rehabilitated.</p>

<u>Resource</u>	<u>Existing Management Direction</u>	<u>No Action</u> Existing Forest Plan Standards and Guidelines	<u>Proposed Action</u> Management Direction, Standards and Guidelines (S= standard, G= guideline) These would be in addition to existing Forest Plan S & G's.
Recreation - Visitor Use	<p>Manage in accordance with FSM and FSH direction and to preserve wilderness character in accordance with the Wilderness Act.</p> <p>Humboldt NF, LRMP 1986-</p> <p><i>"Use indirect techniques to disperse wilderness visitors and reduce impacts"</i></p>	<p><i>"If use keeps increasing at the present rate, a permit system or other method on controlling and distributing people may be initiated in the future to encourage camping away from lakes, outfitter camps, or other heavily used user areas."</i></p> <p><i>"Determine the current use and monitor subsequent use being made of the Wilderness to prevent over use."</i></p>	<p>(S) Group size is limited to 15 people and 15 stock animals in one group as the maximum.</p> <p>(S) On-trail encounters shall be, on average, <2 in an 8 hour day.</p> <p>(S) Cross-country encounters shall be, on average, <1 in an 8 hour day.</p>

<u>Resource</u>	<u>Existing Management Direction</u>	<u>No Action</u> Existing Forest Plan Standards and Guidelines	<u>Proposed Action</u> Management Direction, Standards and Guidelines (S= standard, G= guideline) These would be in addition to existing Forest Plan S & G's.
Recreation - Camping/Site Use	<p>Manage in accordance with FSM and FSH direction and to preserve wilderness character in accordance with the Wilderness Act</p> <p>Manage recreation to be compatible with the wilderness resource.</p>	<p><i>"Request horse users to pack in their own feed and to rotate campsites every couple of days."</i></p>	<p>(S) Manage all campsites to have a condition rating of no greater than 2. All sites with a condition rating higher than 2 shall be mitigated in order to bring back within standard or rehabilitated entirely if it otherwise cannot be mitigated.</p> <p>(S) Manage Pristine WROS classification as 1 campsite per 10,000 acres of Pristine. In Wilderness where Pristine acreage is less than 10,000 acres this standard would become no (zero) campsites allowed within this classification.</p> <p>(S) Manage Primitive WROS class as 1 campsite per 500 acres of Primitive.</p> <p>(S) For all WROS Classification Zones, allow no more than 2 sites per any acre.</p> <p>(S) Manage Research Natural Areas as no camping zones to protect and preserve the unique plant communities that were the basis for establishing the RNA.</p>

<u>Resource</u>	<u>Existing Management Direction</u>	<u>No Action</u> Existing Forest Plan Standards and Guidelines	<u>Proposed Action</u> Management Direction, Standards and Guidelines (S= standard, G= guideline) These would be in addition to existing Forest Plan S & G's.
Recreation - Grazing	<p>Manage recreational riding and pack stock to insure resource values are protected.</p> <p>Order Number: <u>04-00-097</u> Weed Free Feed Closure Order, signed by Regional Forester, 2003.</p>	<p><i>"Require users to follow the "Pack in-Pack out" policy."</i></p> <p><i>"Contact trail riders and request that they not tie their horses to green trees."</i></p> <p><i>"Request horse users to pack in their own feed and to rotate campsites every couple of days."</i></p>	<p>Manage recreational grazing to preserve wilderness character in accordance with the Wilderness Act.</p> <p>(S) The use of goats as pack stock in areas where Desert and/or Rocky Mountain bighorn sheep are present is prohibited in order to prevent disease transmission between the species and to preserve these bighorn sheep populations.</p> <p>(S) All feed for recreation stock must be packed in and be certified weed free feed.</p> <p>(G) Implement measures as needed to protect resource values.</p>

<u>Resource</u>	<u>Existing Management Direction</u>	<u>No Action</u> Existing Forest Plan Standards and Guidelines	<u>Proposed Action</u> Management Direction, Standards and Guidelines (S= standard, G= guideline) These would be in addition to existing Forest Plan S & G's.
Wildland Fire Management			<p>Permit naturally occurring wildfires to play, as nearly as possible, their natural ecological role in wilderness.</p> <p>(S) An appropriate suppression response shall be made on all wildfires as outlined in the C3 program (C3 = Confine, Contain, Control) HNF L&RMP Amendment #1 June 21, 1990</p> <p>(G) Naturally occurring wildfires in these wilderness areas should be managed, whenever possible, under less than a full suppression strategy as analyzed and approved in a WFDSS decision and for as long as the stated incident objectives are being met.</p> <p>(S) Human caused wildfires shall receive a suppression orientated initial response with an emphasis on firefighter and public safety.</p> <p>(S) If a human caused wildfire exceeds the initial response actions, a WFDSS decision shall determine further management response to the incident.</p> <p>(G) Protection and expenditures should be commensurate with the Values at Risk.</p> <p>(G) Reduce, to an acceptable level, the risks and consequences of wildfire within wilderness or escaping wilderness.</p>

Alternatives Considered But Eliminated From Detailed Analysis

No other alternatives were considered, as all issues were addressed through project design or other types of mitigations, through existing policy and regulation, or were deemed to be outside the scope of this project.

Chapter 3: Affected Environment/Current Conditions

The purpose of this chapter is to discuss the current conditions within the affected environment and to disclose the environmental consequences of implementing the alternatives described in Chapter 2.

The scope of this Environmental Assessment analysis comprises the area within each individual wilderness area's congressionally designated boundary, (See Maps in Appendix L).

Table 2

Wilderness Area	Acres
Mt. Moriah (USFS & BLM)	92,419
High Schells	121,497
Grant Range	52,600
Quinn Canyon	26,310
Shellback	36,143
White Pine Range	40,013
Bald Mountain	22,366
Red Mountain	20,490
Currant Mountain	47,357
Total	450,487

Wilderness

Affected Environment

This section discusses the current conditions on the ground as it relates to wilderness character, the number of known developments, campsites, campsite densities, as well as, current designations for the Recreation Opportunity Spectrum (ROS). The BLM portion of Mt. Moriah does not currently have an ROS classification applied to it. All other information takes into account the BLM portion of the Mt. Moriah Wilderness. This information is derived primarily from corporate GIS data (both USFS and BLM), field data and subsequent analysis. It is important to understand that GIS data is not always 100% accurate. For example, the total number of acres of designated wilderness doesn't always correlate to the total number of acres/ ROS classification. This is primarily due to errors in the digitization of ROS classifications from old paper maps or from Mylar overlays. As such, this data is approximate and the best data available to us at this time.

Area Descriptions are provided below, with details related to wilderness character starting on page 62.

Mt. Moriah Wilderness

Mt. Moriah is co-managed by the Ely Ranger District and the BLM Ely District Office. It is a total of 92,419 acres, with 8,708 acres under the jurisdiction of the BLM. This wilderness consists of high peaks, rolling mountains, and canyons near the Nevada/Utah border resides in the Northern Snake Range. Located approximately 55 miles east of Ely, Nevada the Mt. Moriah Wilderness is accessed by four trailheads on

the eastern side of the mountain (Hendry's, Hampton, Horse and Smith Creeks), and one main access point on the western side (4-Mile to Big Canyon). There are roughly 35 miles of trails within this wilderness, all on the USFS portion. All trails lead to the central geographic formation that makes Mt. Moriah unique, the "Table". The Table is an 11,000' plateau that has been designated a Research Natural Area (See Map in Appendix F). This area is home to unique subalpine vegetation composed of many varieties of wildflowers, as well as, Bristlecone pines. The Table also affords stunning views of Utah to the east, Great Basin National Park and Wheeler Peak to the south, and the High Schells Wilderness and the Schell Creek Range to the West. Two USFS grazing allotments overlap this Wilderness along with three BLM allotments overlapping the BLM managed portion on the north end. See Appendix J for maps and information.

High Schells Wilderness

The High Schells Wilderness is 121,497 acres in size. This mountainous wilderness is the largest wilderness on the Ely Ranger District. Crowned by 11,883' North Schell Peak this wilderness has high elevation peaks, and deep valleys with year round flowing water. The North and South Schell Peaks Research Natural Area makes up the heart of this wilderness (See Map in Appendix F).

This wilderness runs from its northern end at Kalamazoo Creek south to Cave Mountain and encompasses the highest peaks of the Schell Creek Range. Spring Valley borders this mountain range to the east, while the scenic Duck Creek Basin provides abundant access along the western slope. The Duck Creek Basin is known for its recreational values including three developed campgrounds, dispersed camping opportunities and many trails. The Ranger Trail, a designated ATV trail, runs north along the western boundary of this wilderness from Berry Creek to the Kalamazoo Divide and further north. Hunters flock to this mountain range every hunting season in pursuit of elk, deer and game birds. The largest elk herd in the state of Nevada calls this mountain range home.

Access to the west side is can be had by driving north along Hwy 93, 5 miles past McGill, Nevada and turning right onto the Success Loop Road. This road takes you into Duck Creek Basin and visitors can access the High Schells Wilderness via Timber Creek, Snake Creek and the North and South Forks of Berry Creek trailheads. Accessing this wilderness on the east side, via Spring Valley, requires a 4x4 high clearance vehicle and patience. Cleve Creek offers the best access for those who do not possess a 4x4, though it is still recommended. Two trailheads exist up the Cleve Creek drainage. Taft Creek, McCoy Creek, Bassett Creek and Piermont Creek all have trailhead access at the end of their respective routes.

Ten grazing allotments (cattle and sheep) overlap this wilderness area. See Appendix J for maps and information.

Quinn Canyon Wilderness

The 26,310 acre Quinn Canyon Wilderness is the most remote wilderness on the Ely RD. Extreme isolation defines Quinn Canyon, a remote central Nevada wilderness. From the main ridgeline of the area, cresting at more than 10,000 feet, many smaller ridges and narrow canyons extend out east and west. In the V-shaped drainages, snowmelt along with summer rains collect in four year-round streams. Several springs typically provide water year-round. From pinion pine and juniper, the vegetation gives way to sagebrush with scattered white fir, aspen, and mahogany higher up. Small stands of bristlecone pine can be found here, too. Mule deer move into the higher elevations in summer.

It takes a visitor traveling from Ely, Nevada approximately 3.5 hours of driving time to reach the one trailhead located in Cherry Creek. This area is not just remote but also very rugged. Most of the 25 miles of trail that exist within this wilderness are not maintained on a regular basis. Access to the Cherry Creek Trailhead is gained by driving south from Ely, Nevada on US Hwy 6 to the intersection with State highway 318. Take 318 through Lund, Nevada for another 50 miles. Turn right on an access road that crosses the Wayne E. Kirsch Wildlife Management Area and continue for another 35-40 miles to Adaven, Nevada. A few more miles up this dirt road and you will arrive at the Cherry Creek campground and trailhead. Alternative access can be had by staying on US Hwy 6 passed the junction with 318 over Currant Summit and further passed the old town of Currant. Take a left on a nicely bladed dirt road and follow it for another 15-20 miles.

Four grazing allotments overlap this wilderness, however only X are currently active. See Appendix J for maps and information.

Grant Range Wilderness

The Grant Range Wilderness is 52,600 acres in size. Raptors flock to this area which falls away from 11,298-foot Troy Peak. The Troy Peak Research Natural Area crowns this mountain range (See Map in Appendix F). Vegetation includes a few firs and bristlecone pines at the higher elevations, down to dry lowland pinion-juniper with sagebrush understory. Hikers won't find any maintained trails, just abandoned four-wheel-drive tracks that extend into the area from the east and west. Water is virtually impossible to find, except when snow melts and runs off from higher elevations. Only a dirt road separates this wilderness from Quinn Canyon Wilderness to the south. Few people ever explore this region of central Nevada, although it is relatively easy to get to the high country. Access is the same as the Quinn Canyon Wilderness.

The Grant Range Wilderness is overlapped by four grazing allotments. See Appendix J for more information and a map.

Shellback Wilderness

The Shellback Wilderness, 36,143 acres in size, lies approximately 55 miles west of Ely, Nevada just south of Highway 50. The Shellback Wilderness is entirely within the National Forest System Lands administered by the Ely Ranger District. The Shellback Wilderness is in the northeast portion of the White Pine Division. It is a long ridge running from north to south and reaching over 9,000 feet. The west side has spring fed basins with aspen stands and linear limestone formations. The east side is more arid with Pinion and Juniper forests and some deep rocky canyons. Wild horses utilize this area even though it is outside of the Monte Cristo Wild Horse Territory.

Two grazing allotments overlap the Shellback Wilderness, see Appendix J.

White Pine Range Wilderness

The White Pine Range Wilderness is located on the western side of the White Pine Range south of Highway 50, approximately 55 miles west of Ely, Nevada. The White Pine Range Wilderness is 40,013 acres in size and one of the most remote wilderness areas on the Ely Ranger District. Access is difficult from the west slope as the area is divided into three sections by rough roads open to motorized vehicles

(ATV's or high clearance 4x4 vehicles are recommended). Rocky ridges, rolling hills and varied vegetation can be enjoyed throughout the Wilderness. Many springs attract wildlife and mixed conifers can be found on the higher ridges. This area is just north of the Currant Mountain Wilderness. There are no trails within the area. The Monte Cristo Wild Horse Territory (See Map in Appendix M) overlaps this wilderness. Heavy use by wild horses occurs on the western slopes of the area with significant impacts to Mustang Springs in particular. Three grazing allotments overlap the White Pine Range Wilderness. See Appendix J.

Bald Mountain Wilderness

The Bald Mountain Wilderness lies approximately 25 miles south and west of Ely, Nevada off of Highway 6. The Bald Mountain Wilderness is entirely within National Forest System Lands and comprises 22,366 acres. The Bald Mountain Wilderness is easily accessible by dirt roads which bisect this area in half. It is characterized by narrow canyons, and high elevation grass lands. Precipitation varies from year to year but averages somewhere between 8-12 inches. The Bald Mountain Wilderness is located on the eastern edge of the White Pine Range, with Ellison creek bordering it on the south. It is a lower elevation range with rocky outcrops and unique box canyons. As one gains elevation, Pinion - Juniper forests give way to mountain sage, wildflowers and a high grassy (bald) peak at 8,850 feet. There are no system trails in this Wilderness area. Bald Mtn Wilderness is overlapped by two grazing allotments, one BLM allotment left over from the land transfer in 2006 and on USFS cattle allotment. See Appendix J.

Currant Mountain Wilderness

The Currant Mountain Wilderness lies approximately 45 miles southwest of Ely, Nevada off of Highway 6. The Currant Mountain Wilderness is entirely within National Forest System Lands and encompasses 47,357 acres. The Currant Mountain Wilderness is readily accessible by dirt roads on the eastern side via two routes, the White River and Currant Creek roads. The western slope is more difficult to access, requiring high clearance 4x4 vehicles or ATV's. The Monte Cristo Wild Horse Territory (See Map in Appendix M) also overlaps the western slope with heavy horse use occurring on or around the springs within and outside of the wilderness boundary.

Volcanic-deposited sediments uplifted into a fault-block mountain range, now called Nevada's White Pine Range, which peaks at the 11,513-foot Currant Mountain near the center of the Wilderness. Sagebrush, pinion pine, and juniper dot the lower elevations, deferring to white fir, limber pine, and bristlecone pine higher up. Portions of the area are important to upland game birds, especially chukar, and sometimes to members of the northernmost herd of desert bighorn sheep. The southern section provides ideal habitat for raptors. Elk use the northeastern section, and mule deer are common.

Extremely rugged terrain and limited access (especially from the east) make this an odds-on favorite for solitude in a Nevada Wilderness. The White Pine Peak Research Natural Area (See Map in Appendix F) is also located in the southwestern portion of this wilderness. There are no formal trails in in this wilderness due to flood events which washed out the drainages where trails once occurred.

Two cattle grazing allotments overlap the Currant Mtn Wilderness. See Appendix J.

Red Mountain Wilderness

Adjacent to the Currant Mountain Wilderness in the heart of the White Pine Range, Red Mountain Wilderness at 20,490 acres stands out against the grey limestone escarpment with its orange - red volcanic geology. This remote area possesses beautiful scenic vistas and volcanic rock formations. Access to the Red Mountain Wilderness can be gained from US Highway 6. Turn west on the White River Road and travel approximately 14 miles along a well-established gravel road. Cherry-stem routes access this wilderness from this road. Access can also be gained by US Highway 6 further to the south. Turn north off of the highway onto the Currant Creek road and park anywhere along this dirt road. No formal trails or trailheads exist for this area so access to the backcountry will be cross-country in nature.

Two cattle grazing allotments overlap the Red Mountain Wilderness. See Appendix J.

Wilderness Character

Untrammeled

Grazing, as an authorized historical and current use of wilderness, is not an intentional action taken to control or manipulate the environment. However, there are outcomes related to grazing that end up manipulating the environment in the long term. Excessive grazing in concentrated areas such as around springs or along riparian corridors can alter the vegetation communities that exist in those environments from repetitive trampling, which leads to erosion, soil compaction and introduction of weed species into these areas. Currently each wilderness on the Ely Ranger District and the BLM-managed portion of the Mt. Moriah Wilderness has active grazing allotments within them. Not all acres within wilderness are capable or suitable for grazing but there are a large number of acres that are. The Grant Range and Quinn Canyon Wilderness areas have allotments that were closed a number of years ago in an attempt to allow the range to recover.

Mowing, chaining, seeding and other vegetation treatments are considered a trammeling of the natural environment. Prior to designation some of these treatments were conducted to increase and/or improve the quality of forage for livestock. Since designation no vegetation treatments have occurred in the wilderness areas covered in this plan (see the Natural section below for more information). Vegetation treatment proposals within wilderness will be analyzed in an MRA with additional site-specific NEPA analysis. Prescribed fire – also a trammeling action – may be allowed under particular conditions.

Natural

The overall natural character remains high throughout the nine wilderness areas discussed here, with the main impacts resulting from grazing, fire suppression, vegetation treatments, and noxious and invasive species.

As discussed above under the untrammeled quality, livestock grazing has the potential to affect ecological processes in the project area. The actions that lead to these effects (removal of vegetation, trampling, soil compaction in concentrated use areas, feces deposition, and unintended spread of noxious plant species) also affect natural conditions in the wilderness.

Suppression of naturally occurring fire within wilderness has impacted naturalness and further led to numerous insect outbreaks in tree species such as Limber pine, White fir, curl-leaf mountain mahogany, piñon pine and juniper.

There is limited information pertaining to past vegetation treatments within these wilderness areas prior to designation. In the Bald Mountain Wilderness there is evidence of a vegetation treatment that occurred prior to its designation in 2006. The remnant Bald Mountain Inventoried Roadless Areas (IRA) that is located within the center of the Bald Mountain Wilderness contains a known historic seeding project. There is some evidence that this past project dates back to 1948. This widespread project mainly affected the current Bald Mountain Wilderness in the following areas: T14N R58E, S. 1, 3-8.

Noxious, invasive species are not abundant but are present in small infestations and along road corridors external to wilderness (see Appendix C for maps and a list of known weed species). The presence of these species presents a risk to the wilderness environment. These infestations are actively inventoried, treated and monitored. There is also evidence of a large fire on the northeastern and eastern portions of the Bald Mountain Wilderness that occurred in 2001 and was 1,603 acres in size. Monitoring for noxious and invasive plant species is ongoing within this remnant fire scar.

Undeveloped

Many developments exist within the nine wilderness areas (See Maps in Appendix J). These typically include trails and structures associated with livestock grazing, past mining activities and recreation. The following table lists the known developments and structures existing in each wilderness on the Ely Ranger District and within the BLM portion of the Mt. Moriah Wilderness (This information is constantly being updated).

Table 3

Type	Mt. Moriah	High Schells	Shell-back	White Pine Range	Bald Mtn.	Currant Mtn.	Red Mtn.	Grant Range	Quinn Canyon
Fence	5	14	13	9	5	7	2	1	0
Miles of Fence	1	4.2	5.4	2.23	5.7	1.55	.33	1.15	0
Gate	2	2	3	3	1	1	0	0	0
Water Developments for Wildlife	0	0	0	0	0	1	0	0	0
Water Developments for Livestock	2	1	4	5	2	5	0	3	0
Trail Miles	35	25	0	0	0	3	0	0	20
Signs	8	6	0	0	0	0	0	0	3
Abandoned Mine Lands	1	29	0	0	0	3	0	2	0

There is one wildlife guzzler in designated wilderness. It is located in the Currant Mountain Wilderness and was installed to benefit desert bighorn sheep prior to wilderness designation in 1989. The remaining water developments, gates and fences are all structures associated with the management of permitted livestock operations. No developments have been added to these areas since they were designated as Wilderness.

All trails within wilderness are associated with developed trail systems that are used by visitors to access the area, as well as the USFS for the administration of the area. No trails are located in the BLM-managed portion of Mt. Moriah Wilderness.

Signs found within wilderness are usually found at trail junctions or at the wilderness boundary. These signs are typically made of wood, but can be recycled plastic and do not include any mileages or any other information other than a directional arrow towards a particular drainage. Boundary signs are typically flexible fiberglass markers.

While the presence of abandoned mines provides historical context for the visitor, they can present significant safety hazards. Some old mines may have dangerous levels of deadly gasses such as cyanide that are pooled in the lower depths of the mines. Some also may have rotted timbers holding up the tunnels or old explosives within. General guidance is to stay out of any and all mine shafts, adits or other holes associated with mining activities. Some of the existing abandoned mine sites within the High Schells Wilderness have already been closed and rehabilitated or fitted with gates to protect bat habitat and to keep visitors out. Not all abandoned mines have been located or closed/gated.

Opportunities for Solitude or Primitive, Unconfined Recreation

Solitude or primitive, unconfined recreation opportunities are in great abundance in each of the nine wilderness areas. Those wilderness areas that do not have established trail systems have higher degrees of challenge and solitude due to the limited access offered. The following set of tables illustrates this by breaking out the availability of these opportunities by acres per Recreation Opportunity Spectrum (ROS) classification (See Maps in Appendix N). ROS classification is indicative of the presence of roads or other man-made developments or the lack of developments. Primitive ROS is where one can find the most opportunities for solitude, while Roaded Natural would be indicative of a lower level of solitude due to the proximity of roads and other man-made developments. Research Natural Areas are typically associated with Primitive ROS classifications; however, they are separated out in these tables due to their unique classification as Research Natural Areas (See RNA's in Appendix F for more information). The BLM portion of Mt. Moriah does not have any ROS classifications.

Mt. Moriah Wilderness (USFS portion only)

Table 4

Current ROS Classification	Acres	Sites/ ROS classification	Site Density (Sites/Acres)
Primitive	30,342	19	1 Site/ 1,597acres
Roaded Natural (RN)	2,646	5	1 site/ 529 acres
Semi-Primitive Non-motorized (SPNM)	47,006	56	1 site/ 839 acres
Research Natural Area (RNA)	1,667 (proposed acres)	9	1 Site/ 185 acres.

High Schells Wilderness

Table 5

Current ROS Classification	Acres	Sites/ROS Classification	Site Density (Sites/Acres)
Primitive	31,341	6	1 Site/ 5,224 acres
Roaded Natural (RN)	11,404	43	1 Site/ 265 acres
Semi-Primitive Non-motorized (SPNM)	78,692	14	1 Site/ 5,621 acres
Research Natural Area (RNA)	4,021	0	N/A

Quinn Canyon Wilderness

Table 6

Current ROS Classification	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	16,813	0	0/16,813
Roaded Natural (RN)	92	0	0
Semi-Primitive Non-Motorized (SPNM)	9,464	4	1 Site/ 2,366 acres
Research Natural Area (RNA)	N/A	N/A	N/A

Grant Range Wilderness

Table 7

Current ROS Classification	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	19,857	0	0
Roaded Natural (RN)	1,356	0	0
Semi-Primitive Non-Motorized (SPNM)	31,393	0	0

Research Natural Area (RNA)	2,645	0	0
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Shellback Wilderness

Table 8

Current ROS Classification	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	628	0	0
Roaded Natural (RN)	8378	7	1 Site/ 1,197 acres
Semi-Primitive Non-Motorized (SPNM)	27130	1	1 Site/27,130 acres
Research Natural Area (RNA)	N/A	N/A	N/A

White Pine Range Wilderness

Table 9

Current ROS Classification	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	1,733	0	0
Roaded Natural (RN)	7,892	0	0
Semi-Primitive Non-Motorized (SPNM)	30,388	0	0
Research Natural Area (RNA)	N/A	N/A	N/A

Bald Mountain Wilderness

Table 10

Current ROS Classification*	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	0	0	0
Roaded Natural (RN)	5,760	2	1 Site/ 2,880 acres
Semi-Primitive Non-Motorized (SPNM)	13,661	0	0
Research Natural Area (RNA)	N/A	N/A	N/A

*2,946 acres were not captured in the existing ROS data layer. This is due to the fact that these acres were added to the USFS administered by the Ely Ranger District in 2006 through a land exchange with the BLM via the White Pine County Conservation, Recreation and Development Act of 2006.

Currant Mountain Wilderness

Table 11

Current ROS Classification	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	13,862	0	0/13,862
Roaded Natural (RN)	3,849	0	0/3,849
Semi-Primitive Non-Motorized (SPNM)	29,547	0	0/29,547
Research Natural Area (RNA)	787	0	0/787

Red Mountain Wilderness

Table 12

Current ROS Classification	Acres	Sites/ ROS Classification	Site Density (Sites/Acres)
Primitive	0	0	0
Roaded Natural (RN)	4953	2	1 Site/ 2,477 acres
Semi-Primitive Non-Motorized (SPNM)	15537	0	0
Research Natural Area (RNA)	N/A	N/A	N/A

Other Unique Features

Eastern Nevada is known for its abundance of cave resources. Many of the nine wilderness areas contain caves. Some of these caves remain open to visitation, while others have been either gated to protect bat species or special features of the caves or for safety reasons. It is possible that many caves remain undiscovered in these areas, and this brings many visitors to the area.

Other unique features of eastern Nevada wilderness include wildlife species, unique and rare plant species and scenic vistas. Four of the wilderness areas (Mt. Moriah, High Schells, Currant Mountain, and Grant Range) have very unique landscapes with associated plant and animal species. This is discussed more in the section below.

On a clear day, from the tops of many wilderness mountains, a visitor may enjoy the scenery extending over 100 miles. In many of these views visitors can see other peaks that make up the heart of other wilderness areas, as well as, well into the state of Utah. From the tops of many of the peaks in Mt. Moriah and the High Schells Wilderness areas you can see the old tide lines of the body of water that used to reside in Spring Valley.

Many of the wilderness areas with high elevation, wind-swept peaks and ridges are home to the oldest living tree species on the planet, the Bristlecone Pine. The Mt. Moriah and Grant Range Wilderness

areas have some of the best specimens, while the High Schells, Currant Mountain and Quinn Canyon Wilderness areas also have occurrences of these old trees.

Another unique species of tree that found in these areas is Ponderosa Pine. Red Mountain, Grant Range, Quinn Canyon, and Mt. Moriah Wilderness have small remnant stands of these large trees.

Cultural resources or archaeological remnants of pre-historic and historic time frames can be found across many of these wild landscapes.

Research Natural Areas

Research Natural Areas (RNA) are part of a national network of ecological areas designated in perpetuity for research and education and/or to maintain biological diversity on National Forest System lands. RNAs are for non-manipulative research, observation, and study. They may also assist in implementing provisions of special acts, such as the Endangered Species Act of 1973 and the monitoring provisions of the National Forest Management Act of 1976.

RNAs are permanently protected and maintained in natural conditions, for the purposes of conserving biological diversity, conducting non-manipulative research and monitoring, and fostering education. Included in this network are:

- High quality examples of widespread ecosystems
- Unique ecosystems or ecological features
- Rare or sensitive species of plants and animals and their habitat

These RNAs help protect biological diversity at the genetic, species, ecosystem and landscape scales.

RNAs that are representative of common ecosystems in natural condition serve as baseline or reference areas. To help answer resource management questions, the baseline areas of RNAs can be compared with similar ecosystems undergoing silvicultural or other land management prescriptions. In this way, RNAs make an important contribution to ecosystem management.

RNAs are managed to maintain the natural features for which they were established, and to maintain natural processes. Because of the emphasis on natural conditions, they are excellent areas for studying ecosystems or their component parts and for monitoring succession and other long-term ecological change. Non-manipulative research and monitoring activities are encouraged in RNAs and can be compared with manipulative studies conducted in other areas.

RNAs serve as sites for low-impact educational activities. These areas are available for educational use by university and school groups, native plant societies, and other organizations interested in pursuing natural history and educational field trips.

The prime consideration for managing RNAs is preserving natural conditions and processes. RNAs are protected against human activities that directly or indirectly modify their ecological integrity: they may serve as controls for manipulative research elsewhere. The RMRS Station Director or the Forest Service Regional Forester (for congressionally designated areas) are the only individuals who can approve scientific research on a Research Natural Area.

The National Forest where the RNA is located has direct responsibility for on-the-ground management activities in the RNA (granting access, maintaining gates, fencing, signage, etc.) Research, observation, and educational uses of the RNA are the responsibility of the US Forest Service Rocky Mountain Research Station within their 12-state territory.

The overall goal of RNA management is to maintain the full suite of ecological processes associated with the natural communities and conditions for which the RNA was designed to protect. Attention is being placed on restoration of natural processes such as fire, and control of invasive alien species which alter the composition and functioning of natural communities. Although it has been a goal to maintain natural processes such as fire in RNAs, the reality is that fire was suppressed in many of these natural areas as well as the rest of the landscape. Today, scientists and land managers are working on restoring the natural fire regime to RNAs as well as other portions of the landscape.

There are currently four RNA's within wilderness on the Ely Ranger District (See Maps in Appendix F).

Table 13

Research Natural Area (RNA)	Acres	Wilderness
White Pine Peak	787	Currant Mountain
North-South Schell Peaks	4,021	High Schells
Mt. Moriah	876	Mt. Moriah
Troy Peak	2,645	Grant Range

White Pine Peak RNA

This area, approximately 787 acres, is located in portions of sections 28, 29, 32, and 33, T. 12N, R. 58E, Mount Diablo Baseline Meridian (MDBM). This RNA is entirely in Nye County. Established in 1988, the principal feature of this area is a "native rangeland" plant community in nearly pristine condition. Also present are small stands of white fir, limber and bristlecone pines. This area is important in providing an area suitable for conducting research on high elevation sagebrush communities.

North-South Schell Peaks RNA

This area was established in 1999, is approximately 4,021 acres, and is located in portions of sections 19, 24, and 36, T. 18N, R. 65E; sections 1, 12, 13, and 24 T. 17N, R. 65E; sections 18, 19, 29, 30, 31, 32, T. 18N, R. 66E; and sections 6, 7, 8, 17, 18, and 19 T. 17N, R. 66E, MDBM. This RNA is entirely located in White Pine County. The principal features of this area are alpine peaks and ridges that "harbor a unique alpine plant community".

Mt. Moriah RNA

This area, established in 1999, is approximately 876 acres, and is located in portions of sections 34-36, T. 17N, R. 69E; sections 1-3, T. 16N, R. 69E, MDBM. This RNA is entirely in White Pine County. The principal feature of this area is the landform known as the Table at 10,000 feet plus elevation with subalpine steppe habitat.

Troy Peak RNA

This area, approximately 2,645 acres, is located in portions of sections 29-32, T.6N, R.58E; sections 5-8 and 18 T.5N, R.58E; and sections 1 and 12-14, T.4N, R.57E, MDBM. This RNA is entirely in Nye County. This area was established in 1996. The principal features of this area are stands of bristlecone pine, which can be used to build chronologies through tree-ring research, and limber pine and white fir. The area is also critical summer range for a herd of desert bighorn sheep.

Chapter 4

Environmental Consequences

Effects of the Alternatives on Management Objectives

Goal 1

Provide for the long-term protection and preservation of the areas' wilderness character under a principle of non-degradation. The areas' natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or cultural and historic values present will be managed so that they would remain unimpaired.

Objectives

1. Preserve the primeval character and influence of the wilderness by allowing fire as a natural process of disturbance and succession where the ecosystem is fire-dependent; manage fire where it threatens wilderness character and/or natural ecological conditions or processes; prevent fire where it threatens human life or property.
2. Manage wildlife habitat to support healthy, viable, and naturally distributed wildlife populations in an effort to retain the areas' natural and primeval character.
3. Maintain native plant distribution and abundance through the reduction of noxious and non-native invasive species in an effort to retain the areas' natural and primeval character.
4. Protect and preserve the outstanding archaeological and historic resources of these areas while allowing for visitor enjoyment of those resources.
5. Gather information and carry out research in a manner compatible with preserving the wilderness environment to increase understanding of wilderness ecology, wilderness uses, management opportunities, and visitor behavior.

Impacts of No Action-Alternative A

The No Action alternative does not meet the objectives of Goal 1. Current Forest Plan direction, as amended, does not provide adequate standards and guidelines to manage for preservation of wilderness character. No additional guidance or direction would be provided to meet the objectives associated with this goal. Revisions to the FMP would be done under a separate NEPA process.

Under the No Action Alternative, the BLM's 1995 Mt. Moriah Wilderness Management Plan would continue to be in effect. However, the life of the plan was ten years – making the plan outdated.

Impacts of Proposed Action-Alternative B

The Proposed Action would partially meet objective 1 of Goal 1, as well as, meet the remaining objectives 2-5.

Objective 1 - The proposed action does not change the current Fire Management direction, however, the proposed action does provide additional language that would require coordination with, and/or use of Resource Advisors on fires that are near or within Wilderness. Revisions to the FMP would be done under a separate NEPA process.

Objective 2 – Implementation of standards and guidelines for campsite density and site conditions will help preserve wildlife habitat by establishing thresholds for recreation use site impacts that could affect wildlife habitat.

Objective 3 – The proposed action provides additional guidance for inclusion in future weed management plans.

Objective 4 –Direction for maintenance of cultural resources information is set forth in the standards and guidelines section to help insure that heritage resources are not negatively impacted.

Objective 5- Direction for how research is to be conducted within Wilderness is set forth in the standards and guidelines section to insure that research activities to not negatively impact wilderness character.

Goal 2

To manage the wilderness areas for the use and enjoyment of visitors in a manner that would leave the areas unimpaired for future use and enjoyment as wilderness. The wilderness resource would be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.

Objectives

1. Provide for the use and enjoyment of the wilderness areas while maintaining outstanding opportunities for primitive recreation, including solitude, through minimal visitor use regulations and minimal on-the-ground developments.
2. Utilize education and interpretation as a proactive approach in managing visitor activities that may impact preservation of the wilderness character.
3. Prevent unauthorized motorized vehicle travel through the management of vehicle access points.

Impacts of No Action-Alternative A

The No Action Alternative does not provide adequate direction to ensure that wilderness character is preserved. No additional guidance or direction would be provided to meet the objectives associated with this goal.

Impacts of Proposed Action-Alternative B

The proposed action meets the objectives 1 and 2 of Goal 2, and partially meets objective 3.

Objective 1- Standards are set forth to address opportunities for solitude and primitive recreation. An 'encounters' standard is utilized to address crowding issues and provide action points to preserve solitude. Campsite density standards will also address crowding issues that would arise as campsites and use levels increase in popular areas within wilderness.

Objective 2- Major changes in education and interpretive programs are not anticipated, however, a plan update and review cycle is established to insure that the education program is current, relevant and effective. Education will remain the primary tool for enforcement of wilderness regulations and policy.

Objective 3- This alternative would not authorize any ground disturbing actions to manage unauthorized motorized use. Any ground disturbing actions would be analyzed under separate NEPA analysis. Education plans would include information on how to effectively post motorized closure areas and education of the public to encourage compliance with rules and regulations.

Goal 3

To manage the wilderness areas using the minimum tool, equipment, structure or method necessary to successfully and safely accomplish the objective of a project approved for the preservation of wilderness character. The chosen tool, equipment, structure or method should be the one that least degrades wilderness values temporarily or permanently. Management would seek to preserve spontaneity of use and freedom from regulation to the greatest extent possible.

Objective

1. Implement actions as necessary to meet minimum requirements for the administration of the areas as wilderness and to have the least impact to wilderness character. This includes managing the existing trail system in wilderness to allow visitors to enjoy a variety of recreation experiences and to minimize negative impacts on wilderness resources from off trail travel and camping, as well as, restoration activities.

Impacts of No Action-Alternative A

The No Action alternative meets Goal 3. The Humboldt-Toiyabe National Forest currently follows the Minimum Requirements Decision Guide to insure that actions taken are the minimum required to adequately administer the wilderness and preserve wilderness character.

Impacts of Proposed Action-Alternative B

The Proposed Action meets Goal 3. The Humboldt-Toiyabe National Forest currently follows the Minimum Requirements Decision Guide to insure that actions taken are the minimum required to adequately administer the wilderness and preserve wilderness character.

Goal 4

To manage activities (e.g. grazing of livestock and commercial services) allowed under the Special Provisions of the Wilderness Act (Section 4(d)) and subsequent laws in a manner that would prevent unnecessary or undue degradation of the areas' wilderness character. Special Provisions are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Objectives

1. Allow for special provision land uses determined by the Wilderness Act or White Pine County Conservation, Recreation and Development Act while minimizing developments, degradation to naturalness, and other impacts to wilderness resources.
2. Maintain or enhance the natural appearance of the wilderness areas by removing unnecessary facilities and minimizing or restoring human-caused surface disturbances.
3. Assess potential commercial services of the wilderness areas for their economic importance and prevent negative impacts on wilderness characteristics.

Impacts of No Action-Alternative A

The No Action alternative meets Goal 4. The Humboldt-Toiyabe National Forest currently follows the Minimum Requirements Decision Guide to insure that actions taken are the minimum required to adequately administer the wilderness and preserve wilderness character. This applies to activities that would otherwise be considered non-conforming uses of Wilderness.

Impacts of Proposed Action-Alternative B

The Proposed Action meets Goal 4. The Humboldt-Toiyabe National Forest currently follows the Minimum Requirements Decision Guide to insure that actions taken are the minimum required to adequately administer the wilderness and preserve wilderness character. This applies to activities that would otherwise be considered non-conforming uses of Wilderness.

Goal 5

Manage the BLM and FS portions of the Mt. Moriah wilderness area through a single management plan to provide a maximum amount of management consistency in wilderness protection across administrative boundaries.

Objectives

1. Where possible, management, including any regulation of visitor uses, will appear seamless to the public. Where differences in agency policy occur, and if allowable by law, regulation, or policy, the plan will endeavor to apply the more strict policy to the adjacent land of the other agency.
2. The BLM and FS will assist one another in wilderness management activities including education and public outreach, emergency management, law enforcement, and monitoring.

Impacts of No Action-Alternative A

The No Action alternative does not meet Goal 5. The BLM and FS do not currently have a single management plan for the Mt. Moriah Wilderness. While some coordination between agencies does occur there is still no direction or agreement in place to insure consistency between the agencies.

Impacts of Proposed Action-Alternative B

The Proposed Action meets Goal 5. There will be a single management plan that includes the Mt. Moriah Wilderness and direction within the plan will provide for a coordinated policy and associated management activities across boundaries such that use of the area by the public will appear “seamless”.

Wilderness Management (General and WROS)

Impacts of No Action-Alternative A

General-The No Action alternative or current management direction would continue. Adequate management direction would not be in place to manage all nine wilderness areas on the Ely Ranger District. Wilderness character is not addressed in current management direction. No wilderness management plan will be adopted for any of the Ely RD wilderness areas including the USFS and BLM co-managed wilderness area.

WROS- No designation of Wilderness ROS zones will be established as a means of managing for solitude and/or primitive and unconfined recreation opportunities.

Impacts of Proposed Action-Alternative B

General-The proposed action would ensure that adequate management direction is in place by instituting an approved management plan that includes standards and guidelines that addresses the preservation of wilderness character.

WROS- The proposed action would modify the existing ROS specifically within wilderness by establishing zones in each wilderness area as a target for desired conditions. These zones vary between Pristine, Primitive, and Semi-Primitive. The Semi-primitive zone is based solely on Social Conditions, whereas, the Pristine Zone and Primitive Zones are based on Physical Conditions. These zones will have standards associated with visitor use that will ensure that outstanding opportunities for primitive or unconfined recreation, as well as, solitude are not degraded.

The Pristine zone is characterized as an extensive, unmodified, natural environment. Natural processes and conditions have not been measurably affected by human influence. Terrain and vegetation allow extensive and challenging cross-country travel. This area provides the greatest opportunities for isolation, solitude, risk, and challenge. Encounters with other visitors will be rare and infrequent. The zone will be managed as free as possible from the influences of human activity. No system trails or campsites will occur within this class, and all user-created trails or campsites found would be eliminated (closed and rehabilitated). Destination points will be accessed only by cross-country travel. Areas in this class are of sufficient size to assure a remote experience away from sights or sounds of human activity.

(Taken from Wilderness.net, but modified by local staff to meet the needs of the local managing district.)

The Primitive Zone is characterized by an essentially unmodified, natural environment of at least moderate size. Concentrations of visitors are low to moderate and evidence of human use is limited to trails and campsites. The area has outstanding opportunities for solitude, exploration, risk, and challenge. This zone provides users with opportunities for cross-country travel, utilizing a high degree of outdoor skills often in an environment that offers a high degree of challenge and risk. (Taken from Wilderness.net, but modified by local staff to meet the needs of the local managing district.)

The Semi-Primitive Zone is characterized by the same physical setting as the Primitive zone, however, proximity to roads and motorized trails external to wilderness is high. System trails and campsites may be present and there may be measurable evidence of other uses. A minimum of on-site controls and restrictions are implemented to protect physical, biological, and social resources. Some facilities may be present to reduce visitor impact. This zone extends at least 0.5 mile on both sides of trail and road corridors, but may be wider around lakes, in drainage basins, and heavily used areas where the sights and sounds of people are noticed at greater distances. A moderate to low degree of opportunity exists in this zone for exploring and experiencing isolation from the sights and sounds of civilization. The environment offers a low to moderate degree of challenge and risk (Taken from Wilderness.net, but modified by local staff to meet the needs of the local managing district).

Recreation (Visitor Use, Camping, Grazing)

Impacts of No Action-Alternative A

Visitor Use - The No Action alternative does not address the visitor use issue as it relates to the aspect of wilderness character of solitude. Standards for encounters would not be established and a protocol for monitoring visitor use would not be implemented. Encounter data does not currently exist.

Camping – The No Action alternative would not implement standards for (1) site conditions or (2) site density and would therefore not address solitude or impacts to vegetation from increases in site density and degradation of resource conditions within individual sites. Campsite proliferation may result from undesirable impacts affecting existing sites which in turn would lead visitors to establish new, less impacted sites. Over the long term this sort of unchecked visitor use would lead to degradation of wilderness character, as well as, impacts to other physical resources.

Grazing – The No Action alternative does not address recreational grazing issues, particularly the use of goats as pack and saddle stock. Goats are currently allowed to be used as pack and saddle stock on the National Forest. As a result, the risk of disease transmission from goats to Desert bighorn and Rocky Mountain bighorn sheep is amplified. A forest order could be issued to prohibit the use of goats in areas where Desert and Rocky Mountain bighorn sheep are present in order to prevent disease transmission between the animal species. Current educational and outreach efforts do not address this particular issue.

Impacts of Proposed Action-Alternative B

Visitor Use – The proposed action addresses maintaining opportunities for solitude by establishing standards for encounters for both on-trail travel and cross country travel for each wilderness. Encounter data does not currently exist. A protocol for collecting data for on-trail and cross-country encounters will be established and baseline information will be collected using this new protocol in order to determine whether the established encounter standard is applicable or needs adjusting. The on-trail encounter standard of less than two people per 8-hour day and the off-trail encounter standard of less than one person per 8-hour day will serve as a starting point. Physical resource conditions indicate low to moderate use in all wilderness areas, and that moderate level of use is seasonal in nature (typically associated with hunting season).

Camping – The proposed action would establish a site condition standard of 2. Site conditions are measured on a scale of 0-6 with 0 being a barely established campsite and 6 being heavily impacted. A site condition rating of 2 is essentially the presence of a fire ring, minimal barren ground within the immediate area of the fire ring, and all other factors being not impacted.

Further, two site density standards will be instituted. This will be no more than 1 campsite per 500 acres within the Primitive WROS classification, no more than 1 campsite per 10,000 acres of Pristine WROS classification; in wilderness areas where Pristine WROS classified acres is less than 10,000 acres, zero campsites will be allowed in order to manage for non-degradation of the resource. The second standard will be no more than 2 sites per any 1 acre. This will preserve wilderness character by insuring that conditions within wilderness do not fall below identified thresholds. Adhering to the established standards will allow for continued opportunities for solitude and primitive recreation and will also insure that recreational activities do not degrade physical conditions such as loss of vegetation and associated habitats.

Grazing – The proposed action would partially address recreational grazing issues by providing new emphasis on educating the public in Leave No Trace principles and the use of weed free feed. A forest order would be issued to prohibit the use of goats and llamas in areas where Desert and/or Rocky Mountain bighorn sheep are present to prevent disease transmission between species and this information will be incorporated into any future education and outreach efforts conducted by FS wilderness personnel while in the backcountry as well as any other event or opportunity where wilderness and LNT discussions may occur.

Information/Education

Impacts of No Action-Alternative A

The No Action Alternative does not adequately address wilderness education and its role in wilderness management. Current management direction only states that education is integral to wilderness management and law enforcement activities. This is generally limited to the responsibility of the wilderness ranger in the administration of his/her duties. This does not include other employees working in support of the wilderness program, such as, front liners, recreation staff officer or even line officer. This does not address either internal education outreach or external educational efforts in local schools or at local events, and does not take into account the technological advances such as social media.

Impacts of Proposed Action-Alternative B

The proposed action establishes a standard of having a formal wilderness education plan that addresses all known wilderness related issues, target audiences and roles and responsibilities for those who are tasked with implementing wilderness education. It would be reviewed and updated every five years in order to keep it relevant, meaningful and effective. The wilderness education plan would expand the traditional role of education beyond the field and into the classroom at local schools, local events where public participation is high, as well as, internal outreach to existing Forest Service staff not typically associated with wilderness management. Further, education and outreach efforts will also need to include the internet and other forms of social media such as YouTube, Facebook and others.

Consultation with Others

The purpose of this chapter is to list the interdisciplinary team that contributed to this environmental assessment.

Interdisciplinary Team

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